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Financial Position Analysis of Livestock Producers in the Republic of Srpska

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Abstract

Our research focuses on the most important indicators of the livestock producers' financial position calculated from the available financial statements. The analysis cover financial data of approximately 85 livestock producers and 315 agricultural companies for the six year period (2010-2015) and is based on the scientific and research methods such as: trend analysis, compilation and comparison, structural analysis, descriptive statistics, calculation of financial indicators and method of inference. The analysis results show that the financial position of livestock production companies in the Republic of Srpska is not acceptable. This means that the livestock industry does not meet the requirements of liquidity (current ratio and quick ratio are below the criteria and the industry average), level of indebtedness (high and above the industry average), interest coverage (negative in average) and solvency level (below the criteria and industry average). Such results indicate that the livestock industry has serious financial problems and needs both internal and systemic measures in order to become more efficient and therefore more profitable and financially sustainable.

Key words: livestock production, financial analysis, liquidity, indebtedness, solvency

Introduction

Agriculture as well as food industry has an important impact on the economy and the development of the Republic of Srpska (RS). The significance of the RS's agriculture is evident by its participation in total gross domestic product and gross domestic value, the number of employees it engages and by the fact that it provides food and other agricultural products to its citizens. The role of agriculture as the provider of raw materials for the development of food industry has a special place not just in the agricultural industry but in the RS' economy as a whole. However, as a result of a transition process, the position and significance of agriculture in the RS' economy has been eroding. Of course, this fact is related with the financial position of the agricultural companies and represents, at the same time, the cause and the effect of their financial performance.

In the context of our analysis, financial position is understood as a portrait of the status and the relationship between assets, liabilities and equity of a business entity. According to the International Financial Reporting Standards / International Accounting Standards (IFRS/IAS), the elements of financial statements directly used in order to measure financial position refer to assets, liabilities and equity (IASB, 2007). All these elements are part of the report called balance sheet. For this reason, balance sheet represents the basic financial statement presenting the financial position of business entities and it is also used as the basis for the estimation of stability of business operations (Žager & Žager, 1999). Therefore, financial position is determined by the status of financial balance – short-term and long-term liquidity, indebtedness, solvency, maintenance of real equity value and reproduction capability (Rodić, 1991; Rodić et al., 2011; Jakšić et al., 2011).

Regarding similar researches in the RS and B&H, Stojanović and Stojanović (2015) carried out the analysis of the general financial position of the agricultural sector in the RS, as a whole, for the three year period (2010-2012) without analyzing sectors within the industry. Stojanović (2016) expanded this analysis by the comparative financial position analysis among individual agricultural sectors for the same period (2010-2012). Vaško et al. (2016) analyzed only revenues, costs and business results of RS' agricultural companies in the 2007-2014 period. Also, Vaško et al. (2018) analyzed financial performance of the companies in the agricultural sector and food industry in the RS. Kulelija et al. (2016) analyzed the liquidity of 153 firms from the agribusiness sector in B&H in the 2008-2014 period.

In Serbia, Vukoje and Obrenovic (2001) analyzed financial result and financial position of rural producers in Vojvodina in 1999 and 2000. Vukoje (2002) performed the analysis of basic financial indicators of Vojvodina's agricultural and food processing companies in 2001. Jakšić et al. (2011) analyzed the financial position of 50 agricultural companies based on their official financial statements for two years (2008-2009). In Croatia, Hadelan et al. (2011) performed the financial analysis of Croatian food industry in the condition of recession for the year 2009.

The aim of our research is to analyze specifically the financial position of livestock producers in the RS, for the six years' period (2010-2015) and to compare it with the financial position of agricultural industry as a whole, on one hand, and the generally accepted criteria, on the other.

Materials and Methods

Financial position can be measured by many indicators, such as short-term and long-term liquidity (i.e. financial balance), debt-paying ability, solvency, maintenance of real equity value and reproduction capability.

However, only some of them will be considered in our case, since the subject of analysis is not a specific company but the whole industry (agricultural industry and livestock producers) constituted by tens and hundreds of individual companies and not all the relevant data are available for the external financial analysis. Therefore, this financial analysis is based on the official financial statements of the agricultural companies (approximately 315 agricultural companies in total) and more specifically livestock producers (approximately 85 companies during the period - 27% of total number of all agricultural companies) registered and operating during the six year period (2010-2015) in the RS.

Our analysis included the calculation of the following: quick ratio and current ratio (short-term debt paying ability); financial stability indicator (long-term debt paying ability); indebtedness ratio, solvency ratio and interest coverage ratio.

Formulas for calculating these ratios and their criteria are commonly known, but we refer to those that can be found in: Rodić (1991), Žager & Žager (1999), Bragg (2002), Wheeling (2008), Gibson (2009), Kramer & Johnson (2009), Ivaniš & Nešić (2011), Rodić et al. (2011) and Mikerević, (2011).

The analysis also included trend analysis, as well as the comparative analysis. In summary, our financial analysis includes:

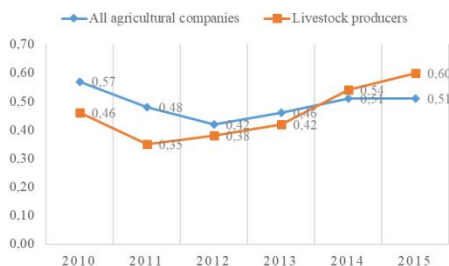
1. the financial position analysis of the livestock producers as a whole and its comparison with the agricultural industry as a whole, and
2. the comparison of each financial position indicator referring to individual livestock producers with the generally accepted criteria and the average of the agricultural industry as a whole.

Results and Discussion

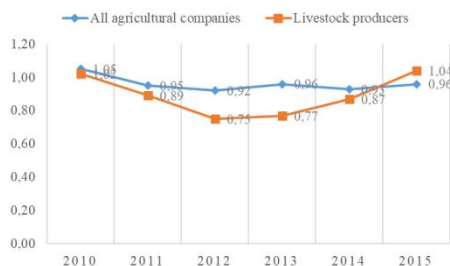
Short-term debt paying ability

Short-term debt paying ability (liquidity) of livestock producers during the period could be seen on Graph 1 (quick ratio) and Graph 2 (current ratio). As Graph 1 shows, quick ratio moved from 0.35 (in 2011) to 0.60 (in 2015), while current ratio was between 0.75 (in 2012) and 1.04 (in 2015).

It is evident that short-term liquidity of livestock producers (measured by both indicators) was weaker than the average liquidity of total agricultural industry during the whole period except in the last year. However both indicators are low and below the general criteria, although there is some improvement in the last two years.



Graph 1. Quick ratio (2010-2015)

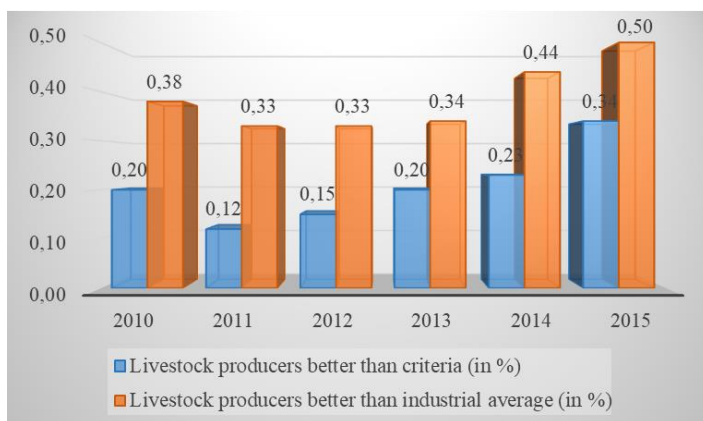


Graph 2. Current ratio (2010-2015)

Радио убрзане ликвидности (2010-2015) Радио текуће ликвидности (2010-2015)

If we take the quick ratio (acid test) as the indicator of short-term liquidity and compare it with generally accepted criteria¹ (see Graph 3), we can see that only 12-34% of livestock producers have been liquid during the period.

¹ Quick ratio has to be ≥ 1 (short-term liquid assets should be equal to or higher than short-term liabilities)

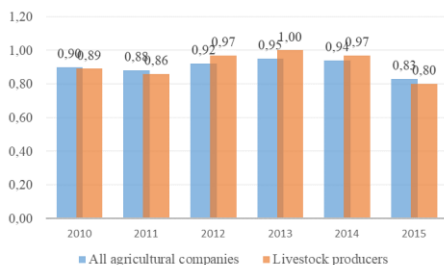


Graph 3. Comparison of livestock companies' quick ratio with general criteria and industrial average (2010-2015)

Поређење брзог рачица ликвидности произвођача анималних производа са општим критеријумом и просјеком индустрије (2010-2015)

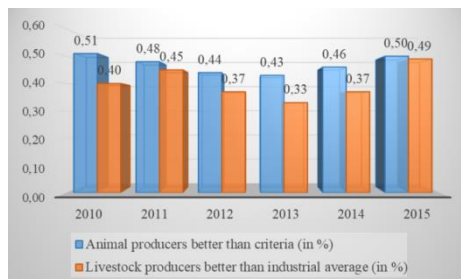
Comparing with the industry average, this situation is better, as approximately 39% of livestock producers have quick ratio above the industry average, but it just confirms the fact that the whole industry has deep short-term liquidity problems.

Long-term debt paying ability



Graph 4. Financial stability ratio (2010-2015)

Радио финансијске стабилности (2010-2015)



Graph 5. Comparison of livestock companies' financial stability ratio with general criteria and industrial average (2010-2015). *Поређење финансијске стабилности произвођача анималних производа са општим критеријумом и просјеком индустрије (2010-2015)*

Graph 4 shows long-term liquidity of livestock producers, measured by financial stability ratio, during the period compared with the industry average. As we can see on the Graph, this indicator was the lowest (the best) in 2015 (0.80) and the highest (the worst) in 2013 (1.0). As was the case with short-term liquidity, the financial stability of livestock producers has also improved in the last year but it clearly indicates that long-term assets are barely covered by long-term financial funds such as equity and long-term debt.

If we take the financial stability ratio as an indicator of long-term liquidity and compare it with generally accepted criteria² (see Graph 5), we can see that 43-51% of livestock producers are financially stable during the period. Comparing with the industry average, this situation is somehow worse, as approximately 40% of livestock producers have had better financial stability than the industry average.

This means that many livestock producers could meet their debts if they sold their long-term assets, but it does not mean that they are liquid in short-term.

Indebtedness

Debt-paying ability, measured by the indebtedness indicator, throughout the period, is shown on Graph 6. As we can see on the Graph, indebtedness of livestock producers moved between 0.66 (in 2015) and 0.87 (in 2014).

Graph 6 clearly shows that most of assets (of both animal producers and agricultural industry in total) are financed through debt (approximately 80% in the case of animal producers and 65% in case of total industry) which is quite high especially in the case where there is a negative financial leverage³.

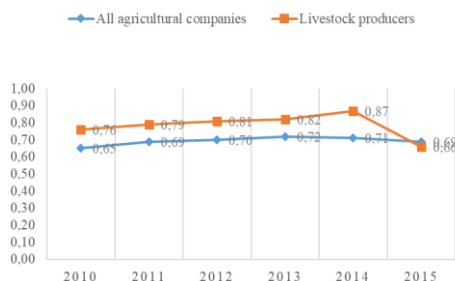
If we compare the indebtedness indicator of individual livestock producers with the general criteria⁴ we can see (on Graph 7) that only 22-34% of livestock producers had acceptable capital structure during the period. Comparing with the industry average, 30-47% of livestock producers have had better capital structure than the industry average.

However, it just confirms that the indebtedness of the whole industry is significant and severe.

² Financial stability ratio should be at least 1:1, or preferably lower (meaning that long-term financial sources are equal or higher than long-term assets)

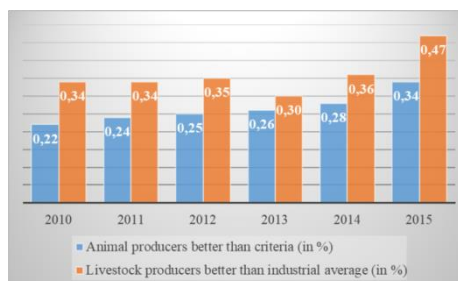
³ Interest rates are higher than ROA, what is the case in the agricultural sector.

⁴ Although it depends on specifics of each company and there are no strict rules, according to some traditional financial rules (vertical balance sheet rules) the acceptable capital structure consists of 50% of owner's capital and 50% of creditors' capital.



Graph 6. Indebtedness indicator (2010-2015)

Показатељ задужености (2010-2015)



Graph 7. Comparison of the livestock companies' indebtedness with general criteria and industrial average (2010-2015).

Поређење задужености произвођача анималних производа са општим критеријумом и индустријским просјеком (2010-2015)

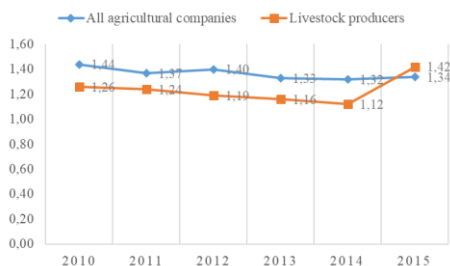
Solvency

Solvency of livestock producers during the period, compared with the whole industry's solvency, could be seen on Graph 8. The Graph shows that the solvency ratio moved between 1.12 (in 2014) and 1.42 (in 2015). The average solvency of the whole industry was 1.37. This situation indicates that book value of assets, in both cases, is barely higher than total debt. However, this value is based on historical cost and can be significantly lower in the case of forced sales of these assets. Also, solvency indicator for livestock producers has been weaker than the industry average during the whole period except in the last year.

If we compare the solvency indicator of individual livestock producers with the general criteria⁵ we can see (on Graph 9) that only 18-28% of livestock producers have been solvent during the period. When compare it with the industry average, the situation seems to be better – 32-47% of livestock producers have had better solvency than the industry average.

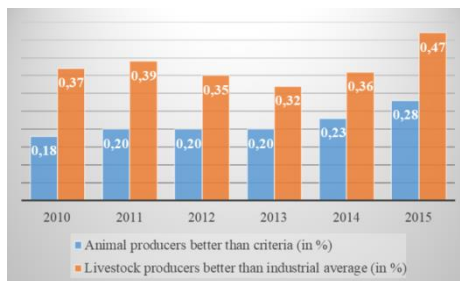
However, it confirms again that the financial position, as well as the solvency of the whole industry is not acceptable.

⁵ There are no strict rules what this ratio should be in order to consider a company as being solvent. However, in the case of bankruptcy it is not possible to sell assets by their book values (their liquidation values are usually significantly lower). Therefore, assets/debts ratio should be as much as possible higher than 1 in order to consider a company as being solvent and for the purpose of our analysis we have used the 2:1 ratio.



Graph 8. Solvency indicator
(2010-2015)

*Показатељ солвентности
(2010-2015)*



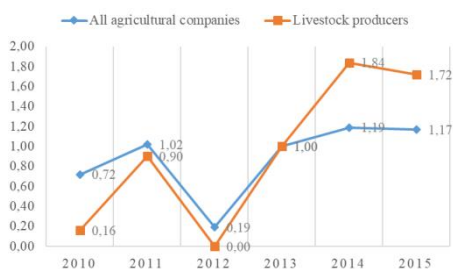
Graph 9. Comparison of the livestock
companies' solvency with general criteria and
industrial average (2010-2015).

*Поређење солвентности произвођача
анималних производа са општим критеријем
и индустријским просјеком (2010-2015)*

Interest coverage

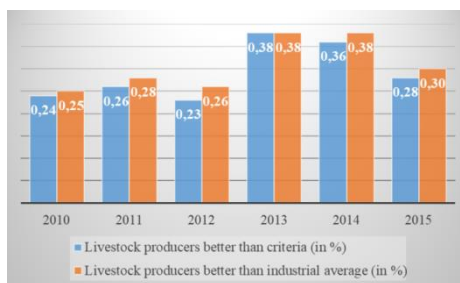
Finally, our financial position analysis took into account the interest coverage ratio indicating if the business operating profit is enough to cover interest expenses. Graph 10 shows that, for livestock producers, this indicator has been between 0 (in 2012) and 1.84 (in 2014) and it was better than in the case of the whole industry in the last two years. Infact, only in these last two years operating profit has been enough to cover the interest costs.

However, most of livestock producers (62-77%) and agricultural companies in general (62-75%) could not cover their interest rate costs by their operating profit (see Graph 11).



Graph 10. Interest coverage indicator
(2010-2015)

*Показатељ покрића камата
(2010-2015)*



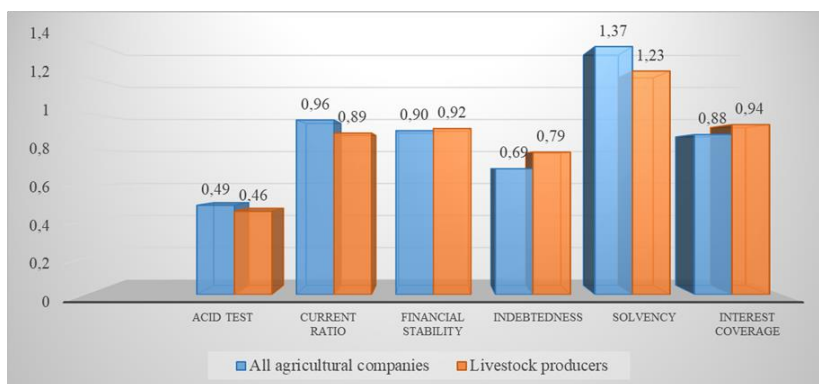
Graph 11. Comparison of the livestock
companies' interest coverage with general
criteria and industrial average (2010-2015).

*Поређење способности покрића камата
произвођача анималних производа са
општим критеријем и просјеком у
индустрији (2010-2015)*

It means that their ability to generate profit (ROA) is low and not enough to finance the debt. In this case, it is not optimal for the companies to finance their business operations through debt and the equity should be more dominant in the capital structure.

Average financial indicators throughout the period – the whole industry vs. livestock producers

As we can see on Graph 12, the most of average financial indicators (disregarding the interest coverage ratio) have been weaker in the case of livestock production companies.



Graph 12. Comparison of livestock companies' average financial indicators with the industrial average

Поређење просјечних финансијских показатеља произвођача анималних производа са просјеком у индустрији

Considering the fact that all these indicators are also bellow acceptable level (i.e. generally accepted criteria) for the industry as a whole, this situation only confirms that the financial position of livestock producers is even weaker.

Conclusion

The agricultural industry differs from other industries and it cannot be neglected. When discussing its financial position and overall performance, certain characteristics should be kept in mind such as the following: existence of vegetation period in crop production, seasonal nature of agricultural production, slow capital turnover, special approach to performance evaluation (considering the seasonal production), etc.

The analysis clearly has shown that those agricultural companies which depend more on these specific factors are more subject to financial problems and low performance.

The results of our financial position analysis show that the financial position of livestock production companies in the RS, in general, is not acceptable. This means that the livestock industry as a whole does not meet the requirements of short-term financial balance, i.e. liquidity (current ratio and quick ratio are below the criteria and the industry average), level of indebtedness (high and above the industry average), interest coverage (negative in average) and solvency level (below the criteria and industry average). Approximately 37% of livestock production companies has a financial position better than the industrial average. However, the unacceptable financial position of the whole agricultural industry and the fact that financial indicators of the majority of livestock production companies are below the industry average indicate that the livestock industry has serious financial problems and needs systemic measures in order to become more efficient and therefore more profitable and financially sustainable.

The fact that, in the same circumstances, some livestock producers have satisfying financial position indicates that the causes of unacceptable financial position of the majority of companies could be looked for in the weak management (not including the risk management), obsolete technology and unfavorable capital structure. Internal solutions, oriented to the improvement of the livestock producers', as well as the whole industry's financial position, should include the restructuring of capital structure in order to secure their short-term/long-term financial balance. That means, in the first place, providing long-term and cheaper capital through the increase of equity, but also a risk oriented management. On the other hand, systemic measures should be implemented in order to create positive affect on the financial position of the whole industry in order to bring more efficiency and thereby more profitability and financial sustainability.

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Анализа финансијског положаја произвођача анималних производа у Републици Српској

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Сажетак

Предмет нашег истраживања је била анализа финансијског положаја произвођача анималних производа у Републици Српској. Наша анализа се фокусира на најзначајније показатеље финансијског положаја који се могу израчунати на основу расположивих финансијских извјештаја. Анализа обухвата финансијске податке од просјечно 85 произвођача анималних производа и 315 пољопривредних предузећа током периода од шест година (2010-2015) и заснива се на научно-истраживачким методама као што су: анализа тренда, компилација и поређење, структурална анализа, дескриптивна статистика, израчунавање финансијских показатеља и метод закључивања. Резултати извршене анализе финансијског положаја показују да је финансијски положај произвођача анималних производа у Републици Српској, генерално, неприхватљив. То подразумева да читав анимални сектор не задовољава захтјеве краткорочне финансијске равнотеже, тј. ликвидности (текући рацио и брзи рацио су испод критерија и индустријског просјека), радни капитал (негативан у просјеку), ниво задужености (висок и изнад индустријског просјека), покриће камата (у просјеку негативно) и ниво солвентности (испод критерија и просјека пољопривредног сектора). Овакви резултати указују да анимални сектор има озбиљних финансијских проблема и да је потребно предузети како интерне тако и системске мјере како би се постигла већа ефикасност, а самим тим и већа профитабилност и боља финансијска одрживост.

Кључне ријечи: анимална производња, финансијска анализа, ликвидност, задуженост, солвентност

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